



PVL68 Solar panel kit instructions

Laminate solar panels are an extremely neat power solution for narrowboats and caravans. Instead of a bulky frame and fragile glass top, the laminate panel simply bonds to the roof. Once it is there it will be barely noticeable, and it is tough enough to walk upon with soft-soled shoes.

We've tried to make the job of connecting up your panel as simple as possible. Just follow the instructions below – and if you've got any questions about the installation, don't hesitate to give us a ring or drop us an email.

- Choose a location for the panel. The surface to be bonded to does not have to be completely flat, as the panel is flexible. However, the panel won't bend round sharp corners. Small scale roughness, such as welds on a narrowboat roof, is best avoided where possible. Lay the panel on the roof, and draw round it with a pencil. Mark the positions where the wires exit the panel.
- It is important that the area to be bonded to is clean and sound. Any loose, flaky paint must be removed, and then the surface lightly sanded to provide a 'key' for the adhesive. Patches of bare steel are fine - the adhesive will bond well to metal. If a textured paint has been used, it may be better to scrape back to bare metal to provide a flat surface. A heat gun (or blowtorch) and scraper is the fastest method.
- Drill two holes for the wires. Note that there is a blob of sealant around each wire, so the holes have to be made wide enough to allow the panel to sit flat on the roof. Clean the area to remove any dust and grease (a wipe with white spirit works well), and lay the panel down to check that it fits snugly before continuing.
- Beginning at the end that the wires come out, peel back the first 6" of backing paper. You will need to cut the backing paper so that the wires will come through. Carefully position the wired end of the panel in place. You ideally need one person below, pulling the wires through the holes to ensure no loops get caught under the panel; one person

positioning the panel and ensuring it is aligned; and another person holding the rest of the panel out of the way. Once the adhesive grabs, it doesn't let go, so it's important you get the positioning right first time!

- Ensure that this end of the panel is aligned exactly with the pencil marks you made earlier before continuing. Then carefully peel back the rest of the backing paper and unroll the rest of the panel onto the roof. Working from the centre of the panel, push down all over to ensure a good bond between the panel and the surface.
- Decide on a location for your solar controller, and mount it using the screw holes provided. Almost anywhere will do, although it is good to minimise the wire run to the battery from the controller.
- Attach the ring terminals to your battery. The red wire with the in-line fuseholder goes to the positive terminal. The black wire goes to the negative terminal. If the fuse should ever blow, it's a standard automotive fuse and replacements are available from any motoring store.
- Attach the other end of the battery leads to the battery (+) and battery (-) terminals on the regulator, using the fork terminals provided. If you wish to shorten the wires, it's fine to cut off the fork terminals and make a bare wire connection instead.
- Lead the wires that exit the solar panel to the regulator - you may have to use conduit or lead the wires behind panelling to make a neat job. The red wire goes to the solar (+) terminal, and the black wire to the solar (-) terminal. Again, if you wish to shorten the wires, it's fine to cut off the fork terminals and make a bare wire connection instead.
- The green LED on the controller should light to indicate charging.

It's that easy! Make yourself a cup of tea, and sit back and enjoy free battery charging from the sun!